

**GILA RIVER BASIN**

**09480000 SANTA CRUZ RIVER NEAR LOCHIEL, AZ**

**LOCATION**--Lat 31° 21'19", long 110° 35'20", in SW<sub>1/4</sub> sec. 11, T.24 S., R.17 E. (unsurveyed), Santa Cruz County, Hydrologic Unit 15050301, on southern border of Spanish land grant of San Rafael, near left bank on downstream side of pier of bridge on county road, 1.7 mi upstream from international boundary, and 2.5 mi northeast of Lochiel.

**DRAINAGE AREA**--82.2 mi<sup>2</sup>.

**PERIOD OF RECORD**--Jan. 1949 to current year.

**REVISED RECORDS**--WSP 1733: 1951. WDR AZ-94-1: 1993.

**GAGE**--Water-stage recorder. Elevation of gage is 4,620 ft above sea level, from topographic map.

**REMARKS**--Records poor. Small diversions for irrigation of 200 acres above station, mostly by pumping from ground water.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 12,000 ft<sup>3</sup>/s Oct. 9, 1977 and Aug. 15, 1984, gage height, 10.21 ft and 10.2 ft, respectively, from rating curve extended above 1,600 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 10.21 ft; no flow at times in most years.

**EXTREMES FOR CURRENT YEAR**--Peak discharges greater than base discharge of 500 ft<sup>3</sup>/s and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 4 .....	0330	*1.5	*2.75

Minimum daily discharge, 0.00 ft<sup>3</sup>/s June 24 and 26.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.47	0.19	e0.40	0.60	0.53	0.86	0.52	0.23	0.19	0.05	0.13	0.18
2	0.43	0.18	e0.40	0.60	0.61	1.0	0.46	0.20	0.19	0.05	0.14	0.18
3	0.38	0.20	e0.40	0.62	0.63	1.2	0.46	0.19	0.18	0.05	0.14	0.17
4	0.47	0.23	0.44	0.61	0.57	1.1	0.42	0.33	0.17	0.04	e0.17	0.17
5	0.45	0.22	0.43	0.51	0.58	0.79	0.35	0.40	0.16	e0.05	e0.16	0.15
6	0.43	0.25	0.44	0.54	0.53	0.64	0.41	0.69	0.15	e0.06	e0.16	0.13
7	0.36	0.26	0.46	0.59	0.47	0.62	0.34	e0.59	0.14	0.05	0.17	0.13
8	0.31	0.26	0.46	0.60	0.54	0.69	0.32	e0.36	0.13	0.05	0.15	0.14
9	0.34	0.25	0.47	0.64	0.56	0.60	0.34	e0.35	0.13	0.05	0.16	0.17
10	0.28	0.22	0.50	0.67	0.56	0.67	0.34	0.35	0.12	0.04	0.16	0.20
11	0.24	0.20	0.59	0.62	0.50	0.64	0.24	0.34	0.12	0.05	0.16	0.20
12	0.27	0.22	e0.60	0.60	0.57	0.60	0.34	0.34	0.11	0.06	0.16	0.18
13	0.36	0.28	e0.51	0.62	0.61	0.59	0.32	0.33	0.10	0.06	0.16	0.18
14	0.29	0.28	0.52	0.61	0.50	0.53	0.35	0.32	0.10	0.06	0.15	0.18
15	0.25	0.28	0.62	0.64	0.50	0.49	0.32	0.31	0.10	0.07	0.15	0.17
16	0.26	0.28	0.59	0.53	0.54	0.46	0.38	0.30	0.08	0.07	0.16	0.18
17	0.19	0.30	0.56	0.54	0.53	0.39	0.28	0.27	0.07	0.08	0.16	0.18
18	0.28	0.33	0.58	0.47	0.54	0.44	0.28	0.26	0.06	0.08	0.19	0.18
19	0.25	0.32	0.57	0.45	0.65	0.50	0.18	0.25	0.04	0.08	0.19	0.18
20	0.28	0.32	0.59	0.42	0.87	0.46	0.27	0.25	0.04	0.09	0.18	0.17
21	0.26	0.33	0.60	0.43	0.79	0.44	0.13	0.24	0.04	0.09	0.17	0.17
22	0.31	0.33	0.60	0.49	0.76	0.32	0.32	0.23	0.02	0.09	0.16	0.16
23	0.32	0.35	0.60	0.50	0.78	0.52	0.25	0.22	0.02	0.09	0.14	0.16
24	0.26	0.35	0.60	0.46	0.96	0.63	0.27	0.21	0.01	0.09	0.13	0.15
25	0.20	0.38	0.63	0.50	0.93	0.60	0.43	0.20	0.02	0.12	0.13	0.13
26	0.20	0.40	0.68	0.47	1.00	0.35	0.39	0.19	0.01	0.11	0.14	0.11
27	0.20	0.33	0.69	0.45	0.90	0.34	0.54	0.18	0.02	0.12	0.14	0.10
28	0.28	0.34	0.66	0.52	0.92	0.54	0.55	0.19	0.03	0.12	0.16	0.10
29	0.24	0.37	0.60	0.54	---	0.61	0.40	0.19	0.04	0.12	0.17	0.11
30	0.21	0.40	0.59	0.56	---	0.69	0.21	0.20	0.05	0.13	0.16	0.12
31	0.15	---	0.59	0.52	---	0.54	---	0.19	---	e0.13	0.17	---
TOTAL	9.22	8.65	16.97	16.92	18.43	18.85	10.41	8.90	2.62	2.40	4.87	4.73
MEAN	0.30	0.29	0.55	0.55	0.66	0.61	0.35	0.29	0.087	0.077	0.16	0.16
MAX	0.47	0.40	0.69	0.67	1.0	1.2	0.55	0.69	0.19	0.13	0.19	0.20
MIN	0.15	0.18	0.40	0.42	0.47	0.32	0.13	0.18	0.00	0.04	0.13	0.10
MED	0.28	0.28	0.59	0.54	0.57	0.60	0.34	0.25	0.09	0.07	0.16	0.17
AC-FT	18	17	34	34	37	37	21	18	5.2	4.8	9.7	9.4
CFSM	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2002, BY WATER YEAR (WY)**

MEAN	4.74	1.29	1.86	4.15	1.79	1.81	0.89	0.44	0.33	7.80	14.8	4.71
MAX	77.0	16.2	17.8	94.7	18.0	34.2	8.68	2.77	2.83	69.4	187	44.3
(WY)	1978	2001	1979	1993	1985	1983	1983	1983	1973	1950	1984	1964
MIN	0.000	0.000	0.000	0.023	0.032	0.013	0.000	0.000	0.000	0.026	0.000	0.000
(WY)	1954	1954	1954	1963	1963	1963	1963	1954	1949	1962	1962	1953

**SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1949 - 2002**

ANNUAL TOTAL	551.01		122.97									
ANNUAL MEAN		1.51		0.34					3.77			
HIGHEST ANNUAL MEAN									29.0		1984	
LOWEST ANNUAL MEAN									0.31		1962	
HIGHEST DAILY MEAN		8.1	Jan 2		1.2	Mar 3			1770	Jan 18	1993	
LOWEST DAILY MEAN		0.04	Sep 12		0.00	Jun 24			0.00	May 19	1949	
ANNUAL SEVEN-DAY MINIMUM		0.16	Sep 6		0.02	Jun 22			0.00	May 19	1949	
ANNUAL RUNOFF (AC-FT)		1090			244				2730			
ANNUAL RUNOFF (CFSM)		0.018			0.004				0.046			
10 PERCENT EXCEEDS		4.1			0.61				4.2			
50 PERCENT EXCEEDS		0.92			0.28				0.50			
90 PERCENT EXCEEDS		0.26			0.09				0.00			

e Estimated